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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,148	10/20/2003	David W. Baarman	18716.84221-001	3887
7590 09/10/2007 Warner Norcross & Judd LLP 900 Fifth Third Center 111 Lyon Street, N.W. Grand Rapids, MI 49503-2487			EXAMINER MILORD, MARCEAU	
			ART UNIT 2618	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/689,148	Applicant(s) BAARMAN, DAVID W.	
	Examiner Marceau Milord	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 and 51-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-49 and 51-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-38, 43-49, 51-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baraban et al (US Patent No 7065658 B1) in view of Chen et al (US Appl. No 2003/0030342).

Regarding claims 1-4, Baraban et al discloses a contact less power supply for providing power to a remote device (figs. 1-2) comprising: a resonant circuit having a variable resonant frequency and a primary winding for transferring power to the remote device (col. 2, lines 33-36; col. 3, lines 44-59); a receiver for receiving information from the remote device (col. 4, lines 25-57).

However, Baraban et al does not specifically disclose the features of a controller for varying the variable resonant frequency in response to information received from the remote device; where the resonant circuit includes a variable impedance element having variable impedance, and the controller varies the variable resonant frequency by varying the variable impedance.

On the other hand, Chen et al, from the same field of endeavor, discloses a flux generator base unit that electromagnetically couples with a portable device to transfer energy into the portable device. The base unit includes one or more permanent magnets or flux shunts that are moved to produce a magnetic flux coupled to a receiver coil of the portable device. The receiver coil is disposed in an elongate housing and is electrically connected with the portable device (page 4, paragraph [0060]. Furthermore, the flux generator base includes a local motor drive that is energized from a power supply/control. The flux generator base is intended to produce a varying magnetic field that induces a corresponding electrical current to flow in a conductor in the receiver coil. The conductor is disposed sufficiently close to the flux generator base to enable magnetic coupling between the conductor and the flux generator to occur. In this particular case, the varying magnetic field it produces passes through a charge base housing in which the varying magnetic field generator is disposed and a separate portable apparatus housing in which a receiver coil is disposed. The receiver coil is preferably coupled to a battery disposed in a main body portion of housing, while the receiver coil is disposed in a receiver housing portion of housing (page 6, paragraph [0071-0073; pages 13-14, paragraph 0120-0123]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Chen to the communication system of Baraban in order to provide a contact less energy transfer apparatus suitable for use with portable consumer devices.

Regarding claims 5, 7, 12-14, Baraban et al discloses a contact less power supply for providing power to a remote device (figs. 1-2) comprising: an inverter, the inverter having a duty cycle and an operating frequency (col. 5, lines 4-20); a resonant circuit coupled to the inverter,

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the resonant circuit having a resonant frequency, the resonant circuit having a primary for transferring power to the remote device (col. 5, line 64- col. 6, line 23; col. 4, lines 11-43); a power source coupled to the inverter, the power source having a rail voltage (col. 5, line 64- col. 6, line 23).

However, Baraban et al does not specifically disclose the features of a power source having a rail voltage; a controller for varying the rail voltage, the resonant frequency or the duty cycle; and a receiver for receiving power information from the remote device, where the controller varies the rail voltage, the resonant frequency or the duty cycle in response to the power information; where the controller determines an optimal setting for the rail voltage, resonant frequency or the duty cycle based upon the list.

On the other hand, Chen et al, from the same field of endeavor, discloses a flux generator base unit that electromagnetically couples with a portable device to transfer energy into the portable device. The base unit includes one or more permanent magnets or flux shunts that are moved to produce a magnetic flux coupled to a receiver coil of the portable device. The receiver coil is disposed in an elongate housing and is electrically connected with the portable device (page 4, paragraph [0060]. Furthermore, the flux generator base includes a local motor drive that is energized from a power supply/control. The flux generator base is intended to produce a varying magnetic field that induces a corresponding electrical current to flow in a conductor in the receiver coil. The conductor is disposed sufficiently close to the flux generator base to enable magnetic coupling between the conductor and the flux generator to occur. In this particular case, the varying magnetic field it produces passes through a charge base housing in which the varying magnetic field generator is disposed and a separate portable apparatus housing

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in which a receiver coil is disposed. The receiver coil is preferably coupled to a battery disposed in a main body portion of housing, while the receiver coil is disposed in a receiver housing portion of housing (page 6, paragraph [0071-0073; pages 13-14, paragraph 0120-0123].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Chen to the communication system of Baraban in order to provide a contact less energy transfer apparatus suitable for use with portable consumer devices.

Regarding claim 6, Baraban et al as modified discloses a contact less power supply for providing power to a remote device (figs. 1-2) where the receiver is part of a transceiver (col. 4, lines 2-43).

Regarding claim 8, Baraban et al as modified discloses a contact less power supply for providing power to a remote device (figs. 1-2) further comprising a memory (col. 4, lines 31-46).

Regarding claim 9, Baraban et al as modified discloses a contact less power supply for providing power to a remote device (figs. 1-2) where the transceiver communicates a plurality of remote devices (col. 5, lines 4-48).

Regarding claim 10, Baraban et al as modified discloses a contact less power supply for providing power to a remote device (figs. 1-2) where the transceiver receives power information from each of the remote devices (col. 5, lines 4-48).

Regarding claim 11, Baraban et al as modified discloses a contact less power supply for providing power to a remote device (figs. 1-2) where the transceiver creates a list in the memory of the power information (col. 2, lines 31-52; col. 5, line 35-col 6, line 30).

Regarding claims 15, 17-20, Baraban et al discloses a remote device capable of receiving power from a contact less power supply (figs. 1-2) comprising: a secondary winding having a secondary winding variable impedance (col. 2, lines 33-36; col. 3, lines 44-59).

However, Baraban et al does not specifically disclose the features of a remote device controller; where the controller varies the secondary winding variable impedance based upon instructions from the contact less power supply; where the controller disables the operation of the remote device based upon instructions from the contact less power supply; where the controller enables operation of the remote device based upon instructions from the contact less power supply.

On the other hand, Chen et al, from the same field of endeavor, discloses a flux generator base unit that electromagnetically couples with a portable device to transfer energy into the portable device. The base unit includes one or more permanent magnets or flux shunts that are moved to produce a magnetic flux coupled to a receiver coil of the portable device. The receiver coil is disposed in an elongate housing and is electrically connected with the portable device (page 4, paragraph [0060]. Furthermore, the flux generator base includes a local motor drive that is energized from a power supply/control. The flux generator base is intended to produce a varying magnetic field that induces a corresponding electrical current to flow in a conductor in the receiver coil. The conductor is disposed sufficiently close to the flux generator base to enable magnetic coupling between the conductor and the flux generator to occur. In this particular case, the varying magnetic field it produces passes through a charge base housing in which the varying magnetic field generator is disposed and a separate portable apparatus housing in which a receiver coil is disposed. The receiver coil is preferably coupled to a battery disposed

in a main body portion of housing, while the receiver coil is disposed in a receiver housing portion of housing (page 6, paragraph [0071-0073; pages 13-14, paragraph 0120-0123].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Chen to the communication system of Baraban in order to provide a contact less energy transfer apparatus suitable for use with portable consumer devices.

Regarding claim 21, Baraban et al as modified discloses a remote device capable of receiving power from a contact less power supply (figs. 1-2) where the remote device has a remote device memory, the remote device memory containing power usage information (col. 2, lines 31-52; col. 5, line 35-col 6, line 30).

Regarding claim 22, Baraban et al as modified discloses a remote device capable of receiving power from a contact less power supply (figs. 1-2) where the power usage information is communicated to the contact less power supply by way of the remote device transceiver (col. 4, lines 2-43).

Regarding claims 23-32, discloses a method of operating a contact less power supply supplying power to a plurality of remote devices, each of the remote devices having a power usage information, comprising: receiving the power usage information for each of the remote devices.

However, Baraban et al does not specifically disclose the steps of adapting the contact less power supply in response to the power usage information; where the contact less power supply has a rail voltage.

Regarding claims 33-38, Baraban et al discloses a contact less power supply for providing power to a remote device (figs. 1-2) comprising: a primary winding for transferring

power to a remote device (col. 2, lines 33-36; col. 3, lines 44-59); a receiver for receiving power usage information from the remote device (col. 4, lines 25-57).

However, Baraban et al does not specifically disclose the features of a controller for changing a variable characteristic of the contact less power supply in response to the power usage information; where the contact less power supply has rail voltage, and the variable characteristic includes the rail voltage.

On the other hand, Chen et al, from the same field of endeavor, discloses a flux generator base unit that electromagnetically couples with a portable device to transfer energy into the portable device. The base unit includes one or more permanent magnets or flux shunts that are moved to produce a magnetic flux coupled to a receiver coil of the portable device. The receiver coil is disposed in an elongate housing and is electrically connected with the portable device (page 4, paragraph [0060]. Furthermore, the flux generator base includes a local motor drive that is energized from a power supply/control. The flux generator base is intended to produce a varying magnetic field that induces a corresponding electrical current to flow in a conductor in the receiver coil. The conductor is disposed sufficiently close to the flux generator base to enable magnetic coupling between the conductor and the flux generator to occur. In this particular case, the varying magnetic field it produces passes through a charge base housing in which the varying magnetic field generator is disposed and a separate portable apparatus housing in which a receiver coil is disposed. The receiver coil is preferably coupled to a battery disposed in a main body portion of housing, while the receiver coil is disposed in a receiver housing portion of housing (page 6, paragraph [0071-0073; pages 13-14, paragraph 0120-0123]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply

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the technique of Chen to the communication system of Baraban in order to provide a contact less energy transfer apparatus suitable for use with portable consumer devices.

Regarding claims 43-47, discloses a remote device capable of receiving power from a contact less power supply (figs. 1-2) capable of being communicatively coupled to a second device by way of the contact less power supply comprising: a transceiver for data communication with the contact less power supply (col. 4, lines 8-26; col. 5, line 64-col. 6, line 16).

However, Baraban et al does not specifically disclose the features of a variable inductor for receiving power from the contact less power supply, and a controller for adjusting the variable inductor.

On the other hand, Chen et al, from the same field of endeavor, discloses a flux generator base unit that electromagnetically couples with a portable device to transfer energy into the portable device. The base unit includes one or more permanent magnets or flux shunts that are moved to produce a magnetic flux coupled to a receiver coil of the portable device. The receiver coil is disposed in an elongate housing and is electrically connected with the portable device (page 4, paragraph [0060]. Furthermore, the flux generator base includes a local motor drive that is energized from a power supply/control. The flux generator base is intended to produce a varying magnetic field that induces a corresponding electrical current to flow in a conductor in the receiver coil. The conductor is disposed sufficiently close to the flux generator base to enable magnetic coupling between the conductor and the flux generator to occur. In this particular case, the varying magnetic field it produces passes through a charge base housing in which the varying magnetic field generator is disposed and a separate portable apparatus housing

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in which a receiver coil is disposed. The receiver coil is preferably coupled to a battery disposed in a main body portion of housing, while the receiver coil is disposed in a receiver housing portion of housing (page 6, paragraph [0071-0073; pages 13-14, paragraph 0120-0123].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Chen to the communication system of Baraban in order to provide a contact less energy transfer apparatus suitable for use with portable consumer devices.

Regarding claims 48-49, 51-55, Baraban et al discloses a discloses a contact less power supply (figs. 1-2) comprising: an inductive power supply; a transceiver for data communication with the plurality of remote devices (col. 2, lines 33-36; col. 3, lines 44-59); a communication interface for coupling the contact less power supply with a second device (col. 4, lines 25-57).

However, Baraban et al does not specifically disclose the features of an inductive power supply for inductively energizing a plurality of remote devices, where the inductive power supply includes a tank circuit having a variable resonant frequency; a communication controller for managing communication between the second device and the plurality of remote devices; a controller capable of changing the resonant frequency, the inverter frequency, the rail voltage or the inverter duty cycle, where the controller is capable of changing the resonant frequency, the inverter frequency, the rail voltage or the inverter duty cycle in response to information from the plurality of remote devices.

On the other hand, Chen et al, from the same field of endeavor, discloses a flux generator base unit that electromagnetically couples with a portable device to transfer energy into the portable device. The base unit includes one or more permanent magnets or flux shunts that are moved to produce a magnetic flux coupled to a receiver coil of the portable device. The receiver

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coil is disposed in an elongate housing and is electrically connected with the portable device (page 4, paragraph [0060]). Furthermore, the flux generator base includes a local motor drive that is energized from a power supply/control. The flux generator base is intended to produce a varying magnetic field that induces a corresponding electrical current to flow in a conductor in the receiver coil. The conductor is disposed sufficiently close to the flux generator base to enable magnetic coupling between the conductor and the flux generator to occur. In this particular case, the varying magnetic field it produces passes through a charge base housing in which the varying magnetic field generator is disposed and a separate portable apparatus housing in which a receiver coil is disposed. The receiver coil is preferably coupled to a battery disposed in a main body portion of housing, while the receiver coil is disposed in a receiver housing portion of housing (page 6, paragraph [0071-0073; pages 13-14, paragraph 0120-0123]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Chen to the communication system of Baraban in order to provide a contact less energy transfer apparatus suitable for use with portable consumer devices.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international

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application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 39-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Baraban et al (US Patent No 7065658 B1).

Regarding claim 39, Baraban et al discloses a remote device (figs. 1-2) for receiving power from a contact less power supply comprising a wireless transmitter for sending power consumption information to the contact less power supply (col. 2, lines 33-36; col. 3, lines 44-59).

Regarding claim 40, Baraban et al discloses a remote device (figs. 1-2) for receiving power from a contact less power supply where the wireless transmitter comprises an RFID tag (col. 5, lines 4-12; col. 2, lines 33-37; col. 3, lines 47-56).

Regarding claim 41, Baraban et al discloses a remote device (figs. 1-2) for receiving power from a contact less power supply where the remote device comprises a memory for storing power consumption information (col. 4, lines 32-46).

Regarding claim 42, Baraban et al discloses a remote device (figs. 1-2) for receiving power from a contact less power supply where the remote device comprises a controller (col. 4, lines 8-26).

5. Applicant's arguments with respect to claims 1-38, 43-49, 51-55 have been considered but are moot in view of the new ground(s) of rejection.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marceau Milord
Primary Examiner
Art Unit 2618

MARCEAU MILORD


MARCEAU MILORD
PRIMARY EXAMINER